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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,881	11/21/2003	Paul Matthijs	920522-95146	2916

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EXAMINER
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SHERMAN, STEPHEN G

ART UNIT	PAPER NUMBER
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2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/719,881

Applicant(s)

MATTHIJS ET AL.

Examiner

Stephen G. Sherman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 December 2006 has been entered. Claims 1-15 are pending.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 8-12 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Aida (JP 59-126967).

**Regarding claim 1**, Aida discloses a method for avoiding misinterpretation of an image displayed on a matrix display due to defective pixels in the matrix display (Figure 3 shows the LED matrix display in which the LEDs are driven to a voltage, i.e. made to emit light, which means that an image is displayed on the matrix display.), the method comprising:

obtaining information on the presence and the location of the defective pixels in the display (Figure 3 and page 5, lines 19-22 explain that measurements are taken of the pixels, and page 5, lines 22 to page 6, line 5 explain that the measurements are compared to determine if there is a defect or not and then the results are stored in a storage section 4. The storage section also receives the coordinate information from the x-sequence control 8 and the y-sequence control 9, i.e. location of the pixel.), and on the basis of this information,

modulating the operation of the display so as to indicate, emphasize or warn for the presence of said defective pixels on the actual display of said image, or

adapting the image content of the defective pixels or of pixels in the neighborhood of the defective pixels so as to indicate, emphasize or warn for the presence of said defective pixels in a copy of said image (Figure 3 shows display

section 14. Page 7, lines 3-5 explain that the judgment results are displayed on the display section 14 at the position that corresponds to the pixel measured at that time. This means that in a copy of the image displayed on the LED matrix display the location of the defective pixels will be made so as to warn and indicate these defects to a user.).

**Regarding claim 2**, Aida discloses a method according to claim 1, wherein a copy of a displayed image is a hard copy or an electronic copy (Figure 3 shows a display 14, which would make the copy a hard copy.).

**Regarding claim 3**, Aida discloses a method according to claim 1, wherein the information is obtained from data previously stored in a memory device (As explained in the rejection of claim 1 and shown in Figure 3 the information is stored in storage section 4.).

**Regarding claim 4**, Aida discloses a method according to claim 3, comprising, while displaying the image on the matrix display supplying information on defective pixels to a user, based on the stored data (As explained in the above rejection of claim 1, while the pixels in the LED display are made to emit light, the measurement is taken and a display is made to the display 14 about the defective pixels, which means that while the LED is lit, i.e. image is displayed, information is provided to the user about the defective pixel.).

**Regarding claim 5**, Aida discloses a method according to claim 1, wherein indicating, emphasizing or warning for the presence of at least one defective pixel comprises marking the at least one defective pixel on the display (Page 7, lines 3-5 explain that the defect is marked on the display 14 at the coordinates of the defect.).

**Regarding claim 8**, Aida discloses a method according to claim 1, wherein the information on the presence of defective pixels is obtained by means of an image capturing device (Figure 2 shows optical sensor Op.).

**Regarding claim 9**, this claim is rejected under the same rationale as claim 1.

**Regarding claim 10**, this claim is rejected under the same rationale as claim 3.

**Regarding claim 11**, this claim is rejected under the same rationale as claim 4.

**Regarding claim 12**, this claim is rejected under the same rationale as claim 5.

**Regarding claim 15**, this claim is rejected under the same rationale as claim 1.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 6-7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aida (JP 59-126967) in view of Johnson et al. (US 2004/0164939).

***Regarding claim 6***, Aida discloses a method according to claim 1.

Aida fails to teach that that the method further comprises showing the displayed image so that defective pixels are not located in a region of interest.

Johnson et al. disclose a method comprising showing a displayed image so that defective pixels are not located in a region of interest (Paragraph [0027] explains that if only part of the image is active that the active part avoids the weak diode, i.e. the image is shifted out of the region where the defect is.).

Therefore, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to show the displayed image so that the defective pixels would not be located in a region of interest as taught by Johnson et al. with the method taught by Aida in order to allow for the proper viewing of the image without any defects in the image being viewable.

***Regarding claim 7***, Aida discloses a method according to claim 1.

Aida fails to teach that that the method further comprises shifting the displayed image so that a defective pixel is located in a flat image area.

Johnson et al. disclose a method comprising shifting a displayed image so that a defective pixel is located in a flat image area (Paragraph [0027] explains that if only part of the image is active that the active part avoids the weak diode, i.e. the image is shifted out of the region where the defect is, and since the display is flat, this will be a flat image area.).

Therefore, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to shift the displayed image so that the defective pixels would be located in a flat image area as taught by Johnson et al. with the method taught by Aida in order to allow for the proper viewing of the image without any defects in the image being viewable.

***Regarding claim 13***, this claim is rejected under the same rationale as claim 6.

***Regarding claim 14***, this claim is rejected under the same rationale as claim 7.



***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Urushiya (US 7,061,533) discloses an image processing system which processes an image signal, and determines, extracts, and corrects defective pixel signals from defective pixels in a sensor array including a plurality of pixels.

Levine et al. (US 2002/0105579) disclose a defect detection circuit formed in a substrate that provides a defective pixel output signal indicating, as the digital pixel signal corresponding to the pixels is processed, if any one pixel of the plurality of pixels in the imaging array is defective.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

14 February 2007

AMR A. AWAD  
SUPERVISORY PATENT EXAMINER

